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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,639	07/28/2003	Yasuo Okutani	00862.023161	3595

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NEW YORK, NY 10112

EXAMINER

LERNER, MARTIN

ART UNIT	PAPER NUMBER
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2626

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/627,639

Applicant(s)

OKUTANI ET AL.

Examiner

Martin Lerner

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 to 13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 to 13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:
On page 3, lines 1 to 2, "may give a destination into trouble" is not idiomatic.
On page 17, line 3, "for all the document" should be —for all the documents—. Appropriate correction is required.
2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested:

Recognizing, Extracting, and Speech Synthesizing a Character String from Documents

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear whether the list of recited elements of a recognized character string, a location of the character string on the document image, a character size and color,

and a vertical or horizontal writing is intended to be a Markush group of elements, where the claim would be anticipated by only any one of the list of recited elements, or whether the claim is intended to set forth a plurality of elements, all of which must be disclosed by the prior art to anticipate the claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 3, 8, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by *Luther*.

Regarding independent claims 1, 8, and 11, *Luther* discloses a text parsing apparatus, method, and computer program product, comprising:

“a reader, arranged to read a document image” – facsimile images that are received from facsimile interface 22 are converted by CPU 11 into bit map images (column 4, lines 29 to 33); implicitly, images from a facsimile machine are read by a “reader, arranged to read a document image” when a user places a document to be scanned by a scanner onto the glass of the facsimile machine, so as to obtain the bit map images;

“a recognition section, arranged to recognize character strings of the read document image” – a text file may be obtained by optical character recognition

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processing of a facsimile document; text files that result from optical character recognition processing may be provided directly to input buffer 31 (column 4, lines 25 to 36: Figure 2);

“a extractor, arranged to extract a character string indicating contents of a document from the recognized character strings” – parser 34 inspects characters in input buffer 31 to detect non-spoken characters, and provides spoken characters to output buffer 32 for enunciation (column 4, lines 40 to 41: Figure 2); it is possible for an operator to indicate that only certain portions should be parsed; for example, an operator may designate that only the first sentence of each paragraph be spoken; or in the case of electronic mail, that only header information such as sender and subject be spoken (column 5, lines 16 to 21);

“a synthesizer, arranged to synthesize and output speech based on the chosen character string” – spoken characters are provided to an output buffer for enunciation by text-to-speech converter 26 (column 4, lines 41 to 43: Figures 1 and 2); a conventional text-to-speech converter 26 interprets text strings sent to it and converts those text strings to audio speech information (column 3, lines 55 to 62: Figures 1 and 2).

Regarding claim 3, *Luther* discloses determining a spatial context, for example, when it is desired to convert a text file which includes the text for a form organized into title fields, the position of those fields is an associated spatial context to the text; thus, the position of the field may indicate a title (column 6, lines 16 to 25).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Luther* in view of *Sturgeon et al.*

Concerning claim 2, *Luther* discloses that parser 34 inspects characters with respect to reference tables 35 to determine whether they have certain characteristics. The characteristics include whether the characters are spoken or non-spoken characters ("on the basis of the recognized character string") (column 4, lines 40 to 53), control font, style, underlining, and appearance ("a character size and color") (column 4, lines 53 to 61), and a position of text fields and an associated spatial context, as when a position of a field may indicate a title ("a location of the character string on the document image" (column 6, lines 16 to 31). The only element omitted by *Luther* is extracting character string information of "vertical or horizontal writing." However, *Sturgeon et al.* teaches an apparatus, method, and computer program product having a character recognition routine that may be performed on regions of the scanned documents in several possible orientations, rotated with respect to one another to provide for recognition of the page designations in any of several possible pages orientations. (Column 6, Line 50 to Column 7, Line 13: Figures 3 and 4) Implicitly, writing is

"horizontal or vertical" depending upon the rotational orientation of the page of the document. The objective is to accurately perform character recognition where commercially available character recognition routines may fail to perform page number recognition. (Column 6, Lines 50 to 57) It would have been obvious to one having ordinary skill in the art to extract character string information as to horizontal or vertical writing as taught by *Sturgeon et al.* in a text parsing apparatus, method, and computer program product of *Luther* for a purpose of accurately performing character recognition where commercially available character recognition routines may fail to perform page number recognition.

9. Claims 4 to 7, 9 to 10, and 12 to 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Sturgeon et al.* in view of *Furohashi et al.*

Concerning independent claims 4, 9, and 12, *Sturgeon et al.* discloses an apparatus, method, and computer program product for organizing scanned images, comprising:

"a reader, arranged to read a document image" – a scanning device 12 is a sheet-fed scanner in which documents 24 are positioned for scanning; scanning device 12 executes operations such as scanning, copying, and facsimile transmission (column 3, lines 52 to 62: Figure 1);

"a recognition section, arranged to recognize character strings of the read document image" – the scanning device or the computer to which it is coupled is provided with character recognition capabilities enabling it to analyze at least one region of a document page (column 6, lines 31 to 36);

“a extractor, arranged to extract a character string indicating pages of documents from the recognized character strings” – page designations are located and identified, so that automatic collation may then be performed by reference to designations (column 6, lines 36 to 39); the scanning device may be programmed to review encoded data in a number of regions to automatically identify such page designations (column 8, lines 18 to 27: Figure 6: Step 212); Figures 3 and 4 illustrate page number locations may be anticipated in one of several positions on each document page (column 6, line 58 to column 7, line 13: Figures 3 and 4);

“a determiner, arranged to determine a page order of documents and/or omission of a page on the basis of the extracted character strings” – following the scanning process, data representative of the pages is analyzed to verify the order of the scanned pages, or to flag missing pages in a batch job (column 2, lines 28 to 33); in general, an overall number of pages in the scanned document will differ from a desired or known number of pages when a misfeed occurs; the present technique enables identification of the probable occurrence of a misfeed (column 7, lines 41 to 47); a comparison is performed of the total number of pages scanned in the batch job with a desired number or anticipated number of pages; if the resulting numbers do not match, a mismatch or misfeed flag is produced (column 8, lines 52 to 56: Figure 6: Steps 218 and 22);

“an output section, arranged to output [speech] corresponding to a determination result” – when a mismatch or misfeed flag is produced, the flag may include generation of a user alarm, or notification which may be output via readout display 30 of the scanning device or on a printed report page (column 8, lines 57 to 59: Figure 6).

Concerning independent claims 4, 9, and 12, *Sturgeon et al.* discloses an output section that notifies a user or operator of an omission of pages or an incorrect page order when a misfeed occurs, and generates an alarm, which is an audible signal, or a notification on a display, but omits only that the notification of an output section is in a form of an output that is "speech". Generally, however, it is fairly well known to output speech by text-to-speech synthesis as an alternative to alarms and displayed communications for a variety of applications. Specifically, *Furohashi et al.* teaches a facsimile machine that stores and outputs voice messages by means of speech synthesis. (Column 7, Lines 53 to 55; Column 8, Lines 3 to 6) Thus, a user or operator is informed of a message by voice response A or voice response B, "Now it is calling. Please wait for a while." or "There is no one responding to this call. If you want to send a facsimile, please sent it after a beep sound." (Column 3, Lines 10 to 24; Figure 8; Column 8, Line 63 to Column 9, Line 10) An objective is to incorporate voice messages into operation of a fax machine for a purpose of promptly completing an image communication procedure. (Column 1, Lines 16 to 25) It would have been obvious to one having ordinary skill in the art to incorporate a text-to-speech synthesis facility into a facsimile machine to communicate messages about operation of the facsimile machine as taught *Furohashi et al.* into an apparatus, method, and computer program product for organizing scanned images of *Sturgeon et al.* for a purpose of providing an art recognized alternative to alarms and displayed communications, and to promptly complete an image communication procedure.

Concerning independent claims 6, 10, and 13, *Sturgeon et al.* discloses an apparatus, method, and computer program product for organizing scanned images, comprising:

“a reader, arranged to read a document image” – a scanning device 12 is a sheet-fed scanner in which documents 24 are positioned for scanning; scanning device 12 executes operations such as scanning, copying, and facsimile transmission (column 3, lines 52 to 62: Figure 1);

“a recognition section, arranged to recognize character strings of the read document image” – the scanning device or the computer to which it is coupled is provided with character recognition capabilities enabling it to analyze at least one region of a document page (column 6, lines 31 to 36);

“a extractor, arranged to extract a character string, which represents the number of pages of documents, from character strings recognized from a first page of a document” – page designations are located and identified, so that automatic collation may then be performed by reference to designations (column 6, lines 36 to 39); the scanning device may be programmed to review encoded data in a number of regions to automatically identify such page designations (column 8, lines 18 to 27: Figure 6: Step 212); Figures 3 and 4 illustrate page number locations may be anticipated in one of several positions on each document page (column 6, line 58 to column 7, line 13: Figures 3 and 4); a number of pages in the job is provided, such as through a scanned page, as an alternative to operation manipulation of interface panel 26 (column 8, lines 8 to 11: Figure 6: Step 210); thus, the number of desired or anticipated pages to be

scanned may be obtained by scanning and character recognition of a scanned page; implicitly, a number of pages in a facsimile transmission is found on the first page, or cover sheet, of a facsimile document;

“a counter, arranged to count the number of pages of documents” – identification of a number of pages in a batch may be provided through a page counter (column 8, lines 11 to 17);

“a comparator, arranged to compare the extracted character string and count value of said counter” – following the scanning process, data representative of the pages is analyzed to verify the order of the scanned pages, or to flag missing pages in a batch job (column 2, lines 28 to 33); in general, an overall number of pages in the scanned document will differ from a desired or known number of pages when a misfeed occurs; the present technique enables identification of the probable occurrence of a misfeed (column 7, lines 41 to 47); a comparison is performed of the total number of pages scanned in the batch job with a desired number or anticipated number of pages; if the resulting numbers do not match, a mismatch or misfeed flag is produced (column 8, lines 52 to 56: Figure 6: Steps 218 and 22);

“an output section, arranged to output [speech] corresponding to a comparison result” – when a mismatch or misfeed flag is produced, the flag may include generation of a user alarm, or notification which may be output via readout display 30 of the scanning device or on a printed report page (column 8, lines 57 to 59: Figure 6).

Concerning independent claims 6, 10, and 13, *Sturgeon et al.* discloses an output section that notifies a user or operator of an omission of pages or an incorrect

page order when a misfeed occurs, and generates an alarm, which is an audible signal, or a notification on a display, but omits only that the notification of an output section is in a form of an output that is "speech". Generally, however, it is fairly well known to output speech by text-to-speech synthesis as an alternative to alarms and displayed communications for a variety of applications. Specifically, *Furohashi et al.* teaches a facsimile machine that stores and outputs voice messages by means of speech synthesis. (Column 7, Lines 53 to 55; Column 8, Lines 3 to 6) Thus, a user or operator is informed of a message by voice response A or voice response B, "Now it is calling. Please wait for a while." or "There is no one responding to this call. If you want to send a facsimile, please sent it after a beep sound." (Column 3, Lines 10 to 24; Figure 8; Column 8, Line 63 to Column 9, Line 10) An objective is to incorporate voice messages into operation of a fax machine for a purpose of promptly completing an image communication procedure. (Column 1, Lines 16 to 25) It would have been obvious to one having ordinary skill in the art to incorporate a text-to-speech synthesis facility into a facsimile machine to communicate messages about operation of the facsimile machine as taught *Furohashi et al.* into an apparatus, method, and computer program product for organizing scanned images of *Sturgeon et al.* for a purpose of providing an art recognized alternative to alarms and displayed communications, and to promptly complete an image communication procedure.

Concerning claims 5 and 7, *Furohashi et al.* teaches a facsimile machine that incorporates voice message storing means for providing notification messages about

facsimile transmission. (Column 4, Lines 28 to 43: Figure 3) Messages may be generated by speech synthesis. (Column 8, Lines 3 to 6)

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to Applicants' disclosure.

Kanai et al., Kurzweil et al., and Sears et al. disclose related art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin Lerner whose telephone number is (571) 272-7608. The examiner can normally be reached on 8:30 AM to 6:00 PM Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

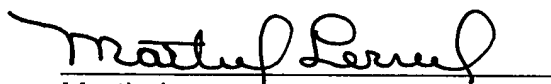
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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ML

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A handwritten signature in black ink, appearing to read "Martin Lerner", written over a horizontal line.

Martin Lerner
Examiner
Group Art Unit 2626